

Abstract of the Disclosure

The present invention provides systems and methods of controlling local environment. In one embodiment, incoming air enters a contactor such the Direct Contact Cooler-Condenser (DCCC) where the air contacts water distributed on the contact media. After passing through the DCCC, the air is saturated at a temperature equal or close to that of the water. Depending on the state of the incoming air, in the DCCC will be humidified or dehumidified to yield saturated air at the desired humidity ratio. In one embodiment, a blower draws air through the DCCC and blows into the heater. The heater heats the air to the desired dry-bulb temperature. Before exiting, the air may pass through a filter.

